Bibliography & References Cited

[1] Office of Science, Financial Assistance, Funding Opportunity Announcement, DE-FOA-0000523, "Terabit Networking for Extreme-Scale Science," Office of Advanced Scientific Computing Research (ASCR), April 7, 2011.

[2] Virtual Circuits (OSCARS), http://www.es.net/services/virtual-circuits-oscars/

[3] T. Lehman, X. Yang, N. Ghani, G. Fu, C. Guok, I. Monga, and B. Tierney, "Multi-Layer Networks - An Architecture Framework," IEEE Communications Magazine, Vol. 49, No. 5, May 2011, pp. 122-130.

[4] Kun-chan Lan and John Heidemann. 2006. A measurement study of correlations of Internet flow characteristics. *ACM Comput. Netw.* 50, 1 (January 2006), 46-62.

[5] G. Shipman, "Case study presentation: Network Optimized storage/file system in leadership computing environment," DOETerabit networks for extreme scale science Workshop, February 16-17, 2011, https://indico.bnl.gov/getFile.py/access?contribId=45&sessionId=28&resId=0&materialId=slides&confId=319

[6] Jonathan T. Overpeck, Gerald A. Meehl, Sandrine Bony,David R. Easterling, "Climate Data Challengesin the 21st Century", Science, VOL 331, 11 FEBRUARY 2011, pp. 700-702.

[7] Network and Science Requirement Workshops, http://es.net/about/science-requirements/reports/

[8] Liang Guo; Matta, I.; , "The war between mice and elephants," *Network Protocols, 2001. IEEE Ninth International Conference on* , vol., no., pp. 180- 188, 11-14 Nov. 2001.

[9] S. Cotter, C. Guok, J. Metzger, W. Johnston, "ESnet Update," ESCC Meeting, Clemson, SC, Feb. 2011.

[10] I.Monga, C. Guok, W. Johnston, B. Tierney, "Hybrid Networks: Lessons learned and future challenges based on ESnet4 experience," IEEE Communications Magazine, May 2011.

[11] T. T. T. Nguyen and G. Armitage, "A survey of techniques for internet traffic classification using machine learning," *Communications Surveys & Tutorials, IEEE* , vol.10, no.4, pp.56-76, Fourth Quarter 2008

[12] Andrew W. Moore and Denis Zuev, "Internet traffic classification using Bayesian analysis techniques," In Proceedings of the 2005 ACM SIGMETRICS international conference on measurement and modeling of computer systems, pages 50–60, New York, NY, USA, 2005.

[13] Laurent Bernaille, Renata Teixeira, Ismael Akodkenou, Augustin Soule, and Kave Salamatian. Traffic classification on the fly. SIGCOMM Comput. Commun. Rev., 36(2):23–26, 2006.

[14] J. Park, Hsiao-Rong Tyan, and C.-C.J. Kuo. Internet traffic classification for scalable QOS provision. In Multimedia and Expo, 2006 IEEE International Conference on, pages 1221–1224, July 2006.

[15] T. Auld, A.W. Moore, and S.F. Gull, "Bayesian neural networks for Internet traffic classification," IEEE Transactions on Neural Networks, 18(1):223–239, Jan. 2007.

[16] Yan Luo, Ke Xiang and Sanping Li, Acceleration of Decision Tree Searching for IP Traffic Classification, ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS), San Jose, CA, November 6-7, 2008

[17] P. DeMar, et al. "Use of Alternate Path WAN Circuits at Fermilab," Proceedings of CHEP07, Victoria BC, Canada, September 2-4, 2007.

[18] D. Katramatos, B. Gibbard, D. Yu, S. Mckee, "The TeraPaths Testbed: Exploring End-to-End Network QoS," 2007 3rd International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom).

[19] End Site Control Plane Service (ESCPS), ttps://plone3.fnal.gov/P0/ESCPS/

[20] M. Swany, Phoebus, http://damsl.cis.udel.edu/projects/phoebus/works.php

[21] N. Ghani, et al, "Control Plane Design in Multidomain/Multilayer Optical Networks," IEEE Communications Magazine, Vol. 46, No. 6, June 2008, pp. 78-87.

[22] N. S. V. Rao, W. R. Wing, Q. Wu, N. Ghani, T. Lehman, C. P. Guok, E. Dart, Measurements on hybrid dedicated bandwidth connections, INFOCOM High Speed Networks Workshop, 2007

[23] H. Zang, J. P. Jue, and B. Mukherjee, "A review of routing and wavelengthassignment approaches for wavelength-routed optical WDM networks,"Opt. Networks Mag., vol. 1, no. 1, Jan. 2000.

[24] Ramamurthy, B.; Ramakrishnan, A.; , "Virtual topology reconfiguration of wavelength-routed optical WDM networks," *Global Telecommunications Conference, 2000. GLOBECOM '00. IEEE* , vol.2, no., pp.1269-1275 vol.2, 2000

[25] Neal Charbonneau and Vinod M. Vokkarane, "Static Routing and Wavelength Assignment for Multicast Advance Reservation in All-Optical Wavelength-Routed WDM Networks," IEEE/ACM Transactions on Networking, April 2011.

[26] InterDomain Controller Protocol (IDCP), http://www.controlplane.net/
[27] HNTES Project Web site: http://www.ece.virginia.edu/mv/research/DOE09/index.html
[28] M. Veeraraghavan and A. Jukan, "A Hybrid Networking Architecture," Feb. 28, 2010, http://www.ece.virginia.edu/mv/research/DOE09/documents/deliverables/feb2010/hybrid-arch-final.pdf
[29] DOE-funded Advanced Networking Initiative (ANI) 100G Network, https://sites.google.com/a/lbl.gov/ani-100g-network/
[30] Q. Wu, M. Zhu, Y. Gu, and N.S.V. Rao. System design and algorithmic development for computational steering in distributed environments. IEEE Transactions on Parallel and Distributed Systems, vol. 21, no. 4, pp. 438-451, April 2010
[31] One-Way Active Measurement Protocol (OWAMP), http://www.internet2.edu/performance/owamp/index.html
[32] PerfSONAR, http://www.perfsonar.net/
[33] X. Xiao, A. Hannan, B. Bailey, and L. Ni, "Traffic engineering with MPLS in the Internet," IEEE Network Mag., pp. 28–33, Mar. 2000.
[34] A. Feldmann, A. Greenberg, C. Lund,N. Reingold, J. Rexford, and F. True, "Deriving Traffic Demands for Operational IP Networks: Methodology and Experience," IEEE/ACM Transactions on Networking 9, 3 (June 2001).
[35] A. B. Downey, "Lognormal and pareto distributions in the internet," Computer Comm., vol. 28, pp. 790–801, 2005.
[36] A. B. Downey, "Evidence for long-tailed distributions in the internet," in ACM SIGCOMM Workshop on Internet Measurement, 2001.
[37] V. Paxson and S. Floyd, "Wide-area traffic: the failure of poisson modeling," IEEE/ACM Transaction on Networking, vol. 3, pp.226–244, 1995.
[38] R. Jain, D. Chiu, and W. Hawe, "A quantitative measure of fairness and discrimination for resource allocation in shared computer systems," Technical Report TR-301, DEC Research, September 1984.
[39] R. [Online]. Available: http://www.r-project.org/
[40] ns2. [Online]. Available: http://www.isi.edu/nsnam/ns/